First, assume that the incumbent LEC has an embedded cost of providing universal service of $25 per line per month. This embedded cost is exclusive of the RDA which, by design, would be recovered separately as a fixed amount. Second, assume that the retail rate for basic local service has been set at $15 per line per month. Finally, assume that the LEC's long-run incremental cost (LRIC) of providing the services covered under universal service is $20 per line per month. By this I mean that the LEC saves $20 per line when relieved of the burden of supplying these services and incurs a cost of $20 per line per month when acquiring an additional customer. For simplicity, I have assumed uniformity of costs and rates although, in reality, both costs and rates would vary by wire center and customer class. Under the proposed plan, any LEC (either the incumbent or a potential competitor) which accepted the ETC responsibility would be entitled to a support of $10 per line from the universal service fund.

To see what could ultimately happen to rates for local exchange service and to the goal of universal service itself, it is worth considering three alternative cases. First, consider the case in which potential ALECs all have costs which exceed the LEC's embedded cost of $25 per line. In this case, these competitors would not be induced to enter the local exchange market and the incumbent would remain the sole ETC and provider of universal service. Consequently, the incumbent LEC would likely fully recover its embedded cost of local exchange service, and the size of the universal service support would change only to the extent that the rate for basic service or the embedded cost of basic service changes in the future. However, because the universal service fund would be sufficient to maintain affordable rates for basic service, the state's universal service goals would be met and the burden which this goal imposes upon other services should decline over time to the extent the market for such services is growing.

Next, consider a second case in which potential competing ALECs have incremental costs which are below the embedded cost, but above the incremental cost, of the incumbent LEC. For sake of illustration, assume that the least-cost competitor has an incremental cost of $22 per line. Given that cost, the ALEC could afford to offer basic local service at a rate of $12 per line, which is $3 below the rate initially charged by the incumbent. Given the $10 per-line universal service support, the ALEC

would have a revenue of $22 per line which would be enough to cover its incremental cost.

In this case, however, the incumbent LEC would still have the incentive to compete for the customer by lowering its own rates to match the competition. This is because although it would lose net revenue by dropping its rate, the loss would be less than that which could occur from holding the rate constant and losing customers in the process. If the incumbent LEC froze its rate and lost customers, it would sacrifice a $5 per line contribution to the excess of embedded over incremental cost. This is the excess of its revenue of $25 per line ($15 from the customer and $10 in support) over its incremental cost of $20 per line. If, instead, it cut its rate to $12 per line, it would retain both the customer and a contribution of $2 per line to the excess of embedded over incremental cost ($22 in total revenue less $20 in incremental cost).

In this case, the level of support for the incumbent LEC's embedded cost would decline and the attendant losses would be absorbed by shareholders. This would be the result of local exchange competition, a matter presumably contemplated by BellSouth in its move from rate of return to price regulation. As a result, however, the rate for basic service would fall below the level initially deemed necessary to support the goal of universal service. This is because that rate would be determined ultimately not by the embedded cost of the incumbent LEC but by the incremental costs of potential competitors. Since this support would be generated by assessments on other telecommunication service revenues, if the decline in the basic service price were sufficiently large and widespread, the Commission could consider using that decline as an occasion to reduce the level of support from the fund.

The final case to consider is one in which potential ALECs have incremental costs that are lower than those of the incumbent LEC. For illustration, assume the ALEC's incremental cost is $18 per line. In this case, the ALEC could afford to lower its rate for basic service to $8 per line. In conjunction with the universal service support, this rate would be sufficient to cover the incremental cost. As a result, the ALEC could successfully capture the customer. The incumbent LEC would not be able to match the ALEC's rate because doing so would cause even larger losses than those simply from losing the customer. (If the incumbent LEC lowered its rate to $8, it would forego

its contribution of $5 to the excess of embedded over incremental cost and lose an additional $2 for each customer served. This would be $2 more than the losses incurred from simply giving up the customer.)

In this final case, the basic service rate would fall to $8 per line and the incumbent LEC would lose out to its lower-cost competitor. Consumers would thus benefit from competition and the shareholders of the incumbent LEC would be obliged to absorb the entire excess of the embedded over the incremental cost of providing basic local service. Furthermore, the Commission may wish to use the decline in basic service prices as evidence that the level of universal service support is too high and adjust it appropriately.

Q. YOUR HYPOTHETICAL EXAMPLE SEEMS TO SUGGEST THAT COMPETITION IS AN ALL-OR-NOTHING PROCESS IN WHICH EITHER THE INCUMBENT LEC OR AN ENTRANT ALEC WILL CAPTURE ALL BASIC LOCAL SERVICE. IS THIS REALISTIC?

A. No. Such a suggestion emerges entirely from the simplifying assumptions used in the hypothetical example to make the analysis easy. In reality, costs and rates may vary from one customer to another. Moreover, the quality of service and the taste for various services may vary among customers. Consequently, there may be competition for some customers but not for others. As a result of such competition, the incumbent LEC may retain some customers but lose others. Nevertheless, the illustrative example conveys the essence of the result. First, with this plan, the Commission's goal of universal service would be maintained regardless of the extent of competition in the local exchange market. Second, the universal service support mechanism would not interfere with the workings of the competitive market. Competitors would vie for customers on the basis of their incremental costs and service quality, and the carrier offering the greatest excess of value over cost would probably capture the customer. Third, with the exception of the RDA, the incumbent LEC's ability to recover its embedded cost would depend entirely on the competitiveness of the local exchange market. The incumbent would recover its embedded cost only to the extent that it was below the incremental cost of its competitors, not otherwise. Finally, over time, if costs

were sufficiently low, competition could reduce or eliminate entirely the need for the universal service fund.

Q. SINCE ULTIMATELY THE RATES CHARGED FOR BASIC SERVICE WOULD DEPEND UPON THE INCREMENTAL COSTS OF COMPETING ALECS, AND NOT THE EMBEDDED COST OF THE INCUMBENT LEC, WHY DO YOU PROPOSE TO BASE THE LEVEL OF UNIVERSAL SERVICE SUPPORT ON THE EMBEDDED COST?

A. I propose to base the level of universal service support on the incumbent LEC's embedded cost for two reasons. The first is a matter of fairness. The incumbent LEC incurred its current embedded cost under market and institutional arrangements which were quite different from those which prevail today. The incumbent was the assumed monopoly supplier and was entitled to recover all of its investment in promoting and providing universal service and to earn a fair return on investments in those services. The only requirement was that the investments had to be prudent as judged and approved by regulators in place at the time they were made. While circumstances are now different and these markets are potentially competitive, the incumbent should surely be afforded the opportunity to recover its investments in universal service unless they are threatened by genuine and effective competition. Such an opportunity requires that the universal service fund initially be set to cover the level of embedded cost. Setting a lower level of support (consistent with the incumbent LEC's LRIC or TSLRIC, for example) would deny the LEC the opportunity to recover its embedded investment even if no lower cost competitors entered the market. Such regulatory treatment would be unfair and confiscatory.

Q. WHAT IS THE SECOND REASON?

A. Measuring the relevant incremental cost on which the universal service fund might be based would be all but impossible. No one knows what the incremental cost of local exchange service will be for ALECs. Such costs may be particularly difficult to measure because we do not know what technologies ALECs will use to supply this service or which additional services they will provide.

To the extent that analysts have sought to measure the incremental cost of providing basic service, they have typically focused on the cost of the incumbent LEC. But these estimates are often highly speculative and, in any case, irrelevant. There is no reason to believe that the incumbent's incremental cost would bear any relation to those of its competitors and, in particular, no reason to measure them if they do not. In a competitive market, the LEC would still seek to recover its embedded cost and would never set the rate at its own incremental cost if its competitor's incremental cost were higher.

Given these measurement difficulties, targeting the universal service fund to a speculative estimate of such costs would be both risky and pointless. If the estimate is too high, it would offer the incumbent LEC revenues to which it is not entitled. If it is set too low, it would deny the incumbent LEC the opportunity to earn returns to which it is legitimately entitled. And, there is no need to take either risk. By setting the universal service fund to the level needed to support embedded costs, those costs would be recovered unless undermined by genuine competition. If, in reality, competition for basic local service drove its rate below the level initially contemplated, that would provide direct evidence on incremental cost and the level of fund support could then be lowered accordingly.

Q. IS IT INEVITABLY THE CASE THAT THE PRICE CHARGED FOR BASIC LOCAL SERVICE WILL FALL TO THE INCREMENTAL COST OF THAT SERVICE LESS THE PORTABLE UNIVERSAL SERVICE SUPPORT?

A. No. It could be either higher or lower. This is because by providing local exchange service to telephone customers, either the incumbent LEC or competing ALECs may be able to sell other profitable services. These would include various custom calling services, entertainment, and toll calling services. ALECs may offer a variety of alternative service plans in which some services are priced above and others are priced below cost. They would select the plan which enabled them to maximize profits either by expanding market share or by attracting customers with high demands for ancillary services. Predicting the precise price pattern is all but impossible but also unnecessary. Regardless of the pricing plans selected, however, the universal service plan would

likely assure widespread access to telephone service and, if for any reason, there was subsequent concern about that goal, the size of the fund could be adjusted accordingly.

Q. WOULD THE PROPOSED UNIVERSAL SERVICE SUPPORT SYSTEM ALLOW THE LEC TO RECOVER THE EMBEDDED COST OF PROVIDING UNIVERSAL SERVICE REGARDLESS OF COMPETITIVE CONDITIONS?

A. No. The proposed support mechanism will only guarantee recovery of the RDA owed to the LEC. The remainder of the support will only be available to LECs or ALECs with the ETC responsibility who actually supply the lines and provide universal service. Ideally, the level of per-line support should be enough to pay for the full extent to which the incumbent LEC's embedded cost exceeds the universal service rate. However, in a compact between BellSouth and the Commission (namely, in BellSouth's price regulation plan), BellSouth agreed to bear the risk — and cost — of facilities and investments that would be stranded whenever BellSouth lost a customer to a competitor. Therefore, the non-RDA support expected from the alternative mechanism would only accrue to BellSouth for lines it actually provided, and would not be a device to make BellSouth "whole" for the cost of facilities stranded by competitive losses. The amount of support actually received on a per-line basis will depend on the level of the ALEC's incremental cost relative to the incumbent LEC's embedded cost.

Q. IS THE PROPOSED UNIVERSAL SERVICE SUPPORT MECHANISM CONSISTENT WITH BELLSOUTH'S PRICE REGULATION PLAN?

A. Yes, I believe it is but, in order to ensure that the implementation is revenue-neutral, BellSouth must reduce those prices which currently support universal service by the initial amount of the fund. This reduction would leave BellSouth in the same financial position as if the universal service fund had been recognized in the rates under which it began the price regulation. It should be noted that the USPF is a form of partial rate rebalancing in which prices of services (e.g., carrier switched access) that currently provide contribution toward universal service can be adjusted downward closer to costs. As a result of those price reductions, BellSouth's revenues will grow less after

the USPF than before while costs will be unaffected. Consequently, BellSouth's rate of productivity growth will decline alongside a productivity offset (in Kentucky, fixed within a range of values for the rate of inflation) in its price regulation plan. From this standpoint, BellSouth's price regulation plan would appear to be a more ambitious undertaking in the presence of a USPF than it would be without it.

III. LOCAL INTERCONNECTION

A. Efficient Pricing Principles for Local Interconnection

Q. WHAT BROAD ECONOMIC PRINCIPLE SHOULD GUIDE THE PROVISION AND PRICING OF LOCAL INTERCONNECTION SERVICE IN A COMPETITIVE LOCAL EXCHANGE?

A. Provision and pricing of local interconnection should be compatible with the overriding economic goal of efficient competition in the local exchange. By definition, efficient competition requires that all actual and potential competitors, LECs and entrant ALECs alike, have the same opportunity to compete for customers on the basis solely of their relative efficiency in providing the services in question, where "efficiency" is defined in terms of giving customers the best combination of service quality and cost. In markets with efficient competition, society receives the highest value of output for its expenditure of scarce inputs. The economic principle that should govern the terms under which networks interconnect and LECs and ALECs compete is that which gives rise to efficient competition.

Q. PLEASE EXPLAIN THE SPECIFIC PRICING PRINCIPLE THAT SHOULD APPLY TO THE PRICING OF LOCAL INTERCONNECTION?

A. The price of local interconnection should be no less than the sum of (1) the direct incremental cost of providing interconnection and (2) a contribution toward the service provider's shared and common costs and other special obligations (if any).

Q. BUT, ISN'T IT TRUE THAT EFFICIENT PRICES ONLY REFLECT UNDERLYING COSTS? WHY SHOULD THE PRICE OF LOCAL INTERCONNECTION INCLUDE CONTRIBUTION?

A. Economic efficiency does require that prices reflect the underlying costs to produce or provide a service. Competition typically has the effect of motivating service providers to price their services as close to their underlying costs as possible. In some circumstances, however, the economically efficient and competitive firm that prices all of its services exactly at incremental cost may fail to be viable, i.e., earn enough revenue to cover all its costs. This can happen, for example, for a multiproduct firm (i.e., a firm that provides many distinct services) that experiences significant economies of scale and/or scope. Economies of scale are experienced whenever additional units of service can be provided at a lower unit cost than previous units (the volume or scale effect). Economies of scope are experienced whenever the firm incurs a lower total cost from providing two or more services in combination than from providing them separately. Scope economies can arise whenever the different services that the firm provides rely on substantial shared resources. The costs of these resources, often called the "shared and common costs" or "overheads," are not specific to any single service and, therefore, not a part of that service's incremental cost. Hence, a firm that prices all of its services exactly at their respective incremental costs may fail to recover the all-important shared and common costs and, eventually, cease to be viable. In these circumstances, the economically efficient firm is obliged to recover at least the incremental costs of its services, but also to require its services to contribute toward the recovery of the shared and common costs (and other special obligations like universal service). Since BellSouth is a multiproduct firm with substantial shared and common costs, its local interconnection service — like any of its other services — should be priced in this fashion.

B. Feasible Compensation Arrangements for Local Interconnection

Q. PLEASE OUTLINE THE CONTEXT WITHIN WHICH COMPENSATION ARRANGEMENTS FOR LOCAL INTERCONNECTION SHOULD BE DESIGNED.

A. Local interconnection is an arrangement by which traffic may be exchanged between the networks of a LEC and an ALEC. When a customer of one network wishes to call a customer of another network, and the call is deemed to be local, the "originating" network carries the call to a mutually agreed "hand-off" point (e.g., a central office, a tandem, etc.) from which point on the "terminating" network does the necessary switching and routing to get the call to its final destination. Technically, various engineering configurations are possible to accomplish this exchange of traffic.

Q. WHAT IS THE PRIMARY ECONOMIC ISSUE IN THE DESIGN OF SUCH COMPENSATION ARRANGEMENTS?

The primary economic issue is one of designing a compensation scheme that allows all carriers to recover their legitimate costs of carrying local calls between their interconnected networks. The cost generated within the originating network is one component of those costs. Recovery of this cost can be assured through local service charges that customers pay to be connected to the network. The other component of cost is that generated within the terminating network when it receives a cross-network local call and routes that call to its final destination. This cost is caused directly by the customer of the originating network and, according to the principle of cost causation, should, therefore, be recovered from the originating network (or the customer of that network that initiates the call). This principle, of course, should work both ways. The LEC and the ALEC should charge each other for terminating local calls that originate on the other's network. This arrangement parallels that which already exists for the termination of cross-network toll calls.

Q. WHEN TWO CARRIERS INTERCONNECT THEIR NETWORKS, SHOULD EACH CARRIER PAY COMPENSATION TO THE OTHER?

A. Yes. If a LEC and an ALEC interconnect, each should pay the cost-based interconnection rate set by the other. That interconnection rate could, of course, differ between the two to reflect inherent cost differences between them and/or their asymmetric special obligations.

Q. ARE THERE ALTERNATIVE COMPENSATION SCHEMES FOR LOCAL INTERCONNECTION?

A. Yes. One alternative compensation scheme, often described as "bill and keep," "mutual traffic exchange," or "compensation in kind" has historically been utilized for the exchange of traffic between non-competing, geographically contiguous LECs or in extended area service contexts. Under bill and keep, neither carrier charges the other for local interconnection but recovers the cost from its own originating customer. This practice is based on the principle that when (1) the traffic exchanged by two interconnected networks is, or can be expected to be, in balance (the same number of calls or minutes received as sent) in perpetuity, (2) customers of both networks are nearly identical or homogeneous (so that they originate about as many calls as they send), and (3) the two networks have identical interconnection cost characteristics, the net payments between networks that charge each other for interconnection would then be zero or close to zero.

Q. GIVEN ITS OBVIOUS ADMINISTRATIVE SIMPLICITY, WOULD YOU RECOMMEND BILL AND KEEP FOR LOCAL INTERCONNECTION?

A. No. Bill and keep is ill-suited to any local exchange market from which the three above-mentioned conditions are absent. Regardless of the traffic balance issue, differences in customer and cost characteristics between networks simply cannot be overlooked. That is, even with balanced traffic between their networks, the interconnecting carriers may find their net payments to not be zero.

Bill and keep is most unsuited to an environment in which LEC and ALEC service areas overlap and they compete for the same customer base. First, when customers are not identical, they would have different willingnesses-to-pay for cross-network local calls and that would influence their calling behavior and patterns. This would have asymmetric traffic, provisioning, and cost consequences for each LEC or ALEC, which a bill and keep arrangement would simply ignore.

Second, bill and keep could reduce the incentive for minimizing the total end-to-end cost of an interconnected call between networks. Each LEC or ALEC may try to provide interconnection in a way that minimizes its own costs, but not necessarily the

costs of the other network. This non-cooperative arrangement for the exchange of traffic may quite possibly fail to minimize the overall cost of that exchange. In other words, if each LEC or ALEC acted merely in its own private self-interest, the true social cost of interconnection would not be minimized under bill and keep. The only arrangement that would mitigate this problem is one in which each LEC was made to realize the cost it imposed on the network to which it sent traffic. This could only be accomplished by a system of terminating charges that reflected those costs. Only then would each LEC act to minimize not merely costs to itself but also to other interconnected networks.

Q. HAVEN'T SOME STATES ADOPTED BILL AND KEEP AS THE COMPENSATION SCHEME FOR LOCAL INTERCONNECTION UNDER COMPETITION?

A. Yes, but, as the small handful of states involved has demonstrated, bill and keep is, at best, an interim solution, pending more definitive compensation arrangements for interconnection. The reasons often advanced in favor of bill and keep — its apparent popularity in the exchange of traffic among non-competing carriers — do not apply under conditions of local exchange competition. Therefore, looking to bill and keep arrangements between non-competing, contiguous LECs as a model for exchanging traffic between competing LECs and ALECs would be tantamount to comparing apples with oranges.

C. Reciprocal/Equal Compensation and Universal Service Support

Q. SHOULD COMPENSATION BETWEEN NETWORKS BE BOTH RECIPROCAL AND EQUAL?

A. No. Compensation between competing, interconnected carriers should always be reciprocal in the sense that each should assess interconnection charges to the other. However, there should be no compulsion to make those charges equal if they reflect different costs to terminate calls. The interconnection rate should reflect the true, prudently-incurred cost of providing call termination service. It is reasonable to ask that the terminating carrier use the most efficient combination of resources and

facilities available to it to terminate the call. That said, however, the cost to terminate a call may vary quite legitimately between networks, depending on the network design and configuration each has.

The difference between two carriers' interconnection rates may be even greater in the absence of a USPF. As with every other service a LEC provides, it is economically proper to require that LEC's local interconnection service to contribute to universal service support. As a result, interconnection rates could differ between a LEC and an ALEC simply because the LEC needs to contribute to universal service support and the ALEC does not.

Q. WITHOUT A UNIVERSAL SERVICE FUND, WHY DO YOU CONSIDER IT NECESSARY TO REQUIRE AN ALEC TO PAY FOR A LEC'S UNIVERSAL SERVICE-RELATED COSTS?

A. Universal service is a social goal from the achievement of which all service providers (not just the LECs that actually provide universal service) would benefit. Yet, at present, only designated LECs have the responsibility to provide universal service. If the current system of universal service support were to continue in the future, it would be entirely reasonable for all service providers to share the burden of universal service from which they all benefit. Otherwise, if all of the support were to be raised by the LECs alone, it would be impossible for LECs to compete on fair and efficient terms with ALECs or other carriers not so burdened.

Q. IS IT ECONOMICALLY PROPER TO REQUIRE LOCAL INTERCONNECTION SERVICE TO CONTRIBUTE TO UNIVERSAL SERVICE SUPPORT?

A. Yes, it is appropriate to require local interconnection to contribute to universal service, particularly with only the current support system in place. Ideally, I would prefer that the support be raised from retail services sold by all telecommunications service providers in Kentucky under the auspices of a USPF. By requiring all services and all service providers to contribute at a uniform rate, the USPF would achieve two things. First, it would spread the burden of support equitably. Second, the contribution burden

would not distort relative prices of different services and, therefore, would not artificially skew consumption toward or away from certain services.

In the absence of the USPF, local interconnection should provide support for universal service. There is a long history of interconnection services being required to provide support for universal service, and I see no reason for not applying that rule to local interconnection.

In the absence of a USPF, this issue can be viewed another way. Non-ETC ALECs and other service providers may argue for any contribution to be left out of the COLR LEC's interconnection rate, arguing that the needed contribution would be better raised through the LEC's retail rates. Such an arrangement would clearly hamstring the LEC's competitiveness in its retail markets. While the non-ETC ALECs and other competitors could lower their retail rates as a result of lower interconnection rates (sans the contribution), the LEC would be forced to include contributions previously raised through wholesale services in its retail rates as well. This double duty for the LEC's retail services would render its prices less competitive and generate further shortfalls in the needed universal service support.

Q. IF A UNIVERSAL SERVICE PRESERVATION FUND WERE SET UP, WOULD BELLSOUTH'S LOCAL INTERCONNECTION RATE NO LONGER INCLUDE CONTRIBUTION?

A. Not necessarily. Presently, most of BellSouth's services provide contribution toward two needs: (1) universal service and COLR (or ETC) obligations and (2) BellSouth's shared and common costs. The shared and common costs would exist even if all services that BellSouth currently provides were to be priced at or above their respective costs. Therefore, while the implementation of a USPF would relieve BellSouth of the need to raise contribution in its service prices toward its special obligations, the need for contribution toward its shared and common costs would remain. While the contribution would not altogether disappear from the local interconnection rate, its magnitude would be reduced.

D. Summary

Q. PLEASE SUMMARIZE YOUR TESTIMONY.

A. Universal Service

Universal service is a social obligation which benefits all telecommunications providers and to which all telecommunications providers should contribute in a competitively neutral manner. The cost incurred to provide universal service includes the shortfall (past, present, and future) in cost recovery from universal services and an amortization of the past depreciation reserve deficiencies incurred to keep basic telephone prices low.

BellSouth, by virtue of being the largest incumbent LEC in the state of Kentucky, has a crucial stake in the adoption of the cost methodology that is most appropriate, given BellSouth's historical circumstances. When asking such a LEC to make the transition from a regulated monopolist to a vigorous competitor, it is important to not handicap the race by asking it to carry monopoly-era baggage into a competitive arena. In return for providing universal service, which required making investments that it would never consider making in a truly competitive environment, BellSouth was promised an opportunity to recover its universal service costs. My testimony indicates just how, and to what extent, that promise should be honored after the onset of local competition. BellSouth should remain entitled to recovering its RDA under all circumstances. This component would be recovered in lump sum or fixed amounts over a finite period of time. However, the component of universal service support that accounts for the revenue shortfall from the social (i.e., below-cost) pricing of universal service should now become portable, i.e., available to the LEC or ALEC that actually serves the customer and is a designated ETC. This component of support should remain available as long as the social pricing continues. Portability of the support would ensure the economically efficient outcome expected under competition — availability of service from the lowest-cost provider. In addition, the Commission could be assured of this outcome without even having to know the incremental costs of various carriers.

Local Interconnection

Pricing and other arrangements for local interconnection should be compatible with the overriding economic goal of efficient competition in the local exchange. Such competition requires that all actual and potential competitors, LECs like BellSouth and entrant ALECs alike, have the same opportunity to compete for customers on the basis solely of their relative efficiency in providing the services in question. In particular, the price of local interconnection should equal the sum of (1) the incremental cost of the service and (2) an appropriate contribution toward shared and common cost (and, in the absence of a USPF, toward special obligations).

When designing the compensation scheme for local interconnection, the primary aim must be to allow all carriers to recover their legitimate costs of transporting and terminating calls between themselves. To facilitate this, each carrier must be allowed to charge the other carrier in return for terminating a local call that originated on the other's network. Such a compensation scheme is often characterized as "reciprocal."

Despite its apparent administrative simplicity, I strongly cautioned against adopting the "bill and keep" form of compensation for local interconnection. Bill and keep requires each carrier to recover its costs of interconnection from its own customers, and has historically been the arrangement of choice among non-competing, geographically contiguous independent LECs for exchanging traffic. This arrangement is particularly ill-suited to a competitive local exchange market (where the interconnecting carriers have overlapping service territories and compete for the same customers).

Finally, BellSouth's proposed rate structure allows full recovery of legitimate interconnection costs and provides the LEC with special obligations an opportunity to pay for them. I endorse BellSouth's proposal that, with an USPF in place, local interconnection rates should be reduced by the amount of its contribution to special obligations.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

Exhibit LJP-1

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Dr. Perl is currently a Senior Vice President of NERA and the Director of its New York City office. He has been employed at NERA since 1972. Over that period he has provided economic consulting services to a broad range of clients on business decisions, regulatory and public policy. Dr. Perl has also appeared as an economic expert in a variety of regulatory proceedings and court cases. Some of his specific areas of experience are summarized below.

Over the last twenty years Dr. Perl has done numerous economic analyses for clients in the regulated sector of the economy—telephone companies and electric utilities in particular. These include assessments of demand elasticity and marginal cost, comparisons of the relative economics of alternative investment decisions, the economic efficiency of alternative pricing policies, and the compatibility of competition and other regulatory policies. These analyses have provided the basis for reports to clients and testimony before regulatory commissions.

In the telecommunications sector Dr. Perl has conducted several major studies of telephone access demand in which he developed econometric models relating residential demand for telephone service to rates and a wide variety of demographic and calling area characteristics. He has testified in these proceedings regarding the effect of various rate proposals on universal service and economic efficiency, and consulted with the FCC on its plan to monitor the effect of its decisions on telephone subscription. He has also testified in cases involving telecommunications company employment practice.

Dr. Perl's recent work on telecommunications includes development of cost/benefit models and analyses of the economic consequences of alternative telephone pricing policies. He has analyzed the benefits from moving to cost-based toll rates and done several studies of the benefits of local measured service. He is currently studying the incremental costs of telephone services.

Dr. Perl has also done substantial work in environmental economics. He has assisted industry groups and individual companies in assessing the social costs and benefits of environmental legislation including the Clean Air Act, the Federal Water Pollution Control Act, the Toxic Substances Control Act, the Comprehensive Environmental Response, Compensation and Liability Act and in evaluating the most economic means of responding to those legislative initiatives. He has testified on the costs and benefits of environmental legislation before congressional committees and regulatory commissions and presented testimony on environmental damages in court cases.

Dr. Perl has also done research on labor market economics. He has assisted clients in evaluating the appropriateness of their compensation, promotion, hiring, termination and overtime policies. He has frequently presented expert economic testimony in court cases addressing issues of age, race and sex discrimination and wrongful termination.

Finally, Dr. Perl has done numerous analyses of economic damages for presentation in commercial litigation and arbitration proceedings. These include assessments of the value of abrogated contracts, lost business opportunities, lost earnings and lost profits.

EDUCATION:

Dr. Perl received his Bachelor of Science degree from the New York State School of Industrial and Labor Relations at Cornell University in 1963. He received his Master's degree in 1968 and his Ph.D. in 1970 in Economics from the University of California at Berkeley. He taught economics at Cornell University from 1968 to 1972.

PUBLICATIONS, TESTIMONIES, CONSULTING REPORTS AND SPEECHES RELATED TO TELECOMMUNICATIONS

Publications:

"Marginal Cost Studies Do Have Forensic Quality," in *Marginal Cost Techniques for Telephone Services: Symposium Proceedings*, ed. William Pollard, The National Regulatory Research Institute, January 1991, pp. 525-544.

with William E. Taylor, "Telephone Penetration," in *After the Break-Up: Assessing the New Post-AT&T Divestiture Era*, ed. Barry G. Cole, Columbia University Press, New York, 1991.

with Jonathan Falk, "The Use of Econometric Analysis in Estimating Marginal Cost," Proceedings from the Bellcore and Bell Canada Industry Forum, San Diego, California, April 1989.

"Can Marginal Costs Be Measured?," in *Telecommunications Policy in a Competitive Environment*, Proceedings of the Second Biennial NERA Telecommunications Conference, March 1987, pp. 85-95.

"The Consequences of Cost-Based Telephone Pricing," in J. Miller, ed., *Telecommunications and Equity: Policy Research Issues*, Proceedings of the Thirteenth Annual Telecommunications Research Conference, 1986, pp. 231-244.

"The Social Welfare and Distributional Consequences of Cost-Based Telephone Pricing," in *Proceedings from the Thirteenth Annual Telecommunications Policy Research Conference*, Airlie, Virginia, April 1985.

"The Consequences of Cost-Based Telephone Pricing," in *Emerging Issues in Telecommunications Economics*, Proceedings of the First Biennial NERA Telecommunications Conference, January 1985.

"Universal Telephone Service and More Efficient Telephone Pricing: Can We Use Our Lines and Have Them Too?," *Proceedings from the Twelfth Annual Telecommunications Conference*, Airlie, Virginia, April 1984.

"Residential Demand for Telephone Service, 1983," prepared for the Central Services Organization, Inc. of the Bell Operating Companies, December, 1983.

Testimonies:

Testimony evaluating BellSouth's price regulation plan, submitted on behalf of BellSouth Telecommunications, Inc. before the North Carolina Utilities Commission, Docket Number P-55, Sub 1013, November 15, 1995.

Rebuttal testimony responding to criticisms of the South Central Bell proposal as not meeting important criteria established for price regulation, submitted on behalf of South Central Bell Telephone Company before the Mississippi Public Service Commission, Docket Number 94-UA-0536, February 17, 1995.

Testimony reviewing the "model" price regulation plan, submitted on behalf of South Central Bell Telephone Company before the Mississippi Public Service Commission, Docket Number 94-UA-0536, January 20, 1995.

Testimony evaluating the costs and benefits to consumers in Wisconsin of a number of alternative extended community calling proposals for the State of Wisconsin, before the Wisconsin Public Service Commission, on behalf of the Wisconsin State Telephone Association, Docket No. 05-TI-199, July 20, 1992.

Testimony describing the potential benefits from enlarging local calling areas, on behalf of South Central Bell Telephone Company, before the Kentucky Public Service Commission, Case No. 91-250, October 11, 1991.

Rebuttal testimony commenting on the direct testimonies of David Kasserman and Brooks Albery, on behalf of South Central Bell Telephone Company, before the Mississippi Public Service Commission, Docket No. 90-UA-0280, February 7, 1991.

Testimony evaluating the advantages and disadvantages of allowing competition in Mississippi's intraLATA telecommunications market, on behalf of South Central Bell Telephone Company, before the Mississippi Public Service Commission, Docket No. 90-UA-0280, January 15, 1991.

Testimony evaluating the advantages and disadvantages of allowing competition in Tennessee's intraLATA telecommunications market, on behalf of South Central Bell Telephone Company, before the Tennessee Public Service Commission, Docket Nos. 89-11065, 89-11735, 89-12677, January 11, 1991.

with William E. Taylor, testimony regarding the effect of toll competition on U.S. telecommunications performance, on behalf of Bell Canada, before the Canadian Radio-Television and Telecommunications Commission, Docket No. 1990-73, November 30, 1990.

Testimony evaluating the advantages and disadvantages of allowing competition in Louisiana's intraLATA telecommunications market, on behalf of South Central Bell Telephone Company, before the Louisiana Public Service Commission, Docket No. U-17949-B, November 27, 1990.

Testimony evaluating the possible gains from changes in traditional rate of return regulation as applied to telephone companies generally and South Central Bell in particular, on behalf of South Central Bell Telephone Company, before the Louisiana Public Service Commission, Docket No. U-17949-A, November 27, 1990.

Testimony evaluating the advantages and disadvantages of allowing competition in Kentucky's intraLATA telecommunications market, on behalf of South Central Bell Telephone Company, before the Kentucky Public Service Commission, Administrative Case No. 323, September 8, 1989.

Testimony regarding marginal cost methodology on behalf of The Southern New England Telephone Company, before the Connecticut Department of Public Utility Control, Docket No. 88-03-31, November 1, 1988.

Testimony regarding the benefits of local measured service pricing and evaluating telephone pricing alternatives using NERA's model, on behalf of South Central Bell, before the Kentucky Public Service Commission, Administrative Case No. 285, May 2, 1988.

Rejoinder testimony commenting on surrebuttal testimony of Dr. Nina Cornell, on behalf of New England Telephone and Telegraph Company, DPU 86-33, August 7, 1987.

Rebuttal testimony evaluating the testimony of Dr. Nina Cornell, on behalf of New England Telephone and Telegraph Company, DPU 86-33, June 29, 1987.

Rebuttal testimony evaluating the testimonies of Dr. Nina Cornell, Dr. Walter Bolter and Mr. Fred Kelsey, on behalf of New England Telephone and Telegraph Company, D.P.U. 86-33/86-124, October 1986.

Testimony commenting on the usefulness of fully distributed costs (FDC) for setting rates or evaluating performance in the telephone industry, on behalf of The Chesapeake and Potomac Telephone Company of Maryland, Case No. 7902, October 3, 1986.

Rebuttal testimony commenting on the testimony of Mr. Robert Fellmeth, on behalf of Pacific Bell, September 30, 1986.

Testimony reviewing criticisms of Pacific Bell's modernization program presented by witnesses for the Public Staff, on behalf of Pacific Bell, Application No. 85-01-034,

Docket No. I-85-03-078, before the California Public Utilities Commission, April 21, 1986.

Rebuttal testimony reviewing the direct testimony submitted in this proceeding by Dr. Ben Johnson, Mr. Gordon Plorin and Dr. Brett Smith, before the Minnesota Public Utilities Commission, on behalf of Northwestern Bell Telephone Company, Docket P-421/GR-83-600, February 8, 1984.

Testimony regarding the effects of proposed rate increase on residential telephone demand in Minnesota, before the Minnesota Public Utilities Commission, on behalf of Northwestern Bell Telephone Company, Docket P-421/GR-83-600, November 18, 1983.

Testimony regarding the effect of proposed increases in fixed monthly charges on residential telephone demand in California, before the Public Utilities Commission of the State of California, on behalf of Pacific Telephone and Telegraph Company, Application Nos.: 82-11-07, 83-01-22, 83-04-02, July 8, 1983.

Testimony describing the effect of specific price increases for basic residential service on the percentage of households with telephones, *United States of America v. American Telephone and Telegraph Company et al.*, in the United States District Court for the District of Columbia, on behalf of American Telephone and Telegraph Company *et al.*, Case No. 74-1698, November 23, 1981.

Rejoinder testimony responding to the surrebuttal testimony of Dr. Ronald Ehrenberg, in the matter of New York Telephone Company (Rate Regulatory Proceeding), before the State of New York Public Service Commission, Case No. 27100, August 3, 1977.

Testimony regarding appropriate levels of compensation for men and women in the matter of New York Telephone Company (Rate Regulatory Proceeding), before the State of New York Public Service Commission, Case No. 27100, June 27, 1977.

Testimony regarding the relationship between unemployment compensation and strikes before the U.S. District Court, Southern District of New York in *New York Telephone Company et al., v. New York State Department of Labor* (Case No. 73 Civ. 4557), January 1976.

Testimony regarding the statistical analysis of employment practices before the Federal Communications Commission (FCC Docket #19143) on behalf of American Telephone & Telegraph Company, August 1, 1972.

Consulting Reports:

with J. Douglas Zona, "The Demand for Residential Telephone Service Including Area Calling Plans," prepared for BellSouth Services, July 22, 1993.

with Timothy J. Tardiff and Jonathan Falk, "Residential Demand for Telephone Service in California," prepared for Pacific Bell, March 23, 1988.

"Residential Demand for Telephone Service," prepared for New York Telephone Company, December 8, 1987.

"Impacts of Local Measured Service on South Central Bell's Service Area in Louisiana," October 10, 1985.

"Impacts of Local Measured Service on South Central Bell's Service Area in Tennessee," October 10, 1985.

"Impacts of Local Measured Service on South Central Bell's Service Area in Mississippi," September 18, 1985.

"Impacts of Local Measured Service on South Central Bell's Service Area in Kentucky," May 21, 1985.

"Impacts of Local Measured Service on South Central Bell's Service Area in Alabama," May 17, 1985.

"Residential Demand for Telephone Service in Areas Served by GTE," prepared for GTE, Inc., August 29, 1984.

"Residential Demand for Telephone Service in Areas Served by Contel," prepared for Continental Telecom, Inc., August 10, 1984.

"Residential Demand for Telephone Service in Areas Served by the United Telephone System," prepared for the United Telephone System, Inc., August 6, 1984.

"Economic and Demographic Determinants of Residential Demand for Basic Telephone Service," prepared for American Telephone & Telegraph Company, March 28, 1978.

"Statistical Analysis of Strike Activity," prepared for *New York Telephone Company v. New York State Department of Labor et al.*, September 11, 1974.

Speeches:

"Access Demand: A Reconsideration," presented at the National Regulatory Research Institute Conference on Telecommunications Demand for New and Existing Services, Denver, Colorado, August 4, 1992.

"Changes in U.S. Telecommunications Regulation: A Quantitative Evaluation," presented at Telecommunications in Canada, A Financial Post Conference, Toronto, Canada, May 2, 1990.

with Jonathan Falk, "The Use of Econometric Analysis in Estimating Marginal Cost: The Choice of Functional Form," presented at the International Telecommunications Society, North American Regional Conference, Ottawa, Canada, June 19, 1989.

"Welfare Consequences of Competition in Illinois," presented at the Illinois Telecommunications Seminar: LEC Competition, Springfield, Illinois, December 14, 1988.

"Economic Consequences of Competition in Telecommunications," presented at the Seventh Bi-Annual Conference, sponsored by International Telecommunications Society, MIT, Cambridge, Massachusetts, June 29-July 1, 1988.

"Can Marginal Costs Be Measured?," presented at `Telecommunications Policy in a Competitive Environment,' sponsored by National Economic Research Associates, Inc., Scottsdale, Arizona, March 4-7, 1987.

"Welfare Gains From Cost-Based Telephone Pricing," presented at The Sixth International Symposium on Forecasting, sponsored by The International Institute of Forecasters, Paris, France, June 1986.

"Residential Demand for Telephone Service, Preliminary Results of a New Model," presented at the Fifteenth Annual Conference of the Institute of Public Utilities, Michigan State University, Williamsburg, Virginia, December 13, 1983.

"The Analysis of Demand for Telephone Service," presented at the 1979 Demand Analysis Conference, sponsored by American Telephone & Telegraph Company, Somerset, New Jersey, June 28, 1979.

CERTIFICATE OF SERVICE

I hereby certify that I have this 7th day of May, 1996 served all parties to this action with a copy of the foregoing **REPLY COMMENTS** by placing a true and correct copy of the same in the United States Mail, postage prepaid, addressed to the parties listed on the attached service list.

Juanita H. Lee

Juanita H. Lee

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